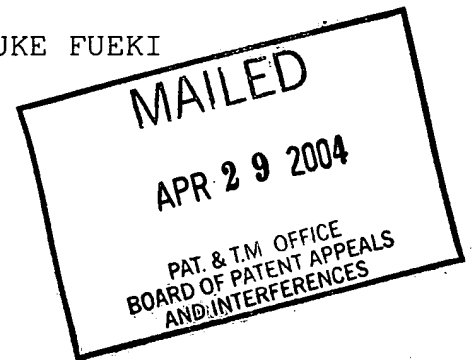Paper No. 31

# UNITED STATES PATENT AND TRADEMARK OFFICE

## BEFORE THE BOARD OF PATENT APPEALS
## AND INTERFERENCES

<u>Ex parte</u> HIRONOBU KITAJIMA and SHUNSUKE FUEKI

Appeal No. 2003-0285
Application No. 08/814,409

ON BRIEF

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PAT. & T.M OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before THOMAS, HAIRSTON, and GROSS, <u>Administrative Patent Judges</u>.

HAIRSTON, <u>Administrative Patent Judge</u>.

## DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 4, 6 through 13 and 15 through 31.

The disclosed invention relates to a method and apparatus for changing the circuit structure of a programmable logic device in an encrypting/decrypting apparatus.

Claims 1 and 23 are illustrative of the claimed invention,

and they read as follows:

1. An encrypting apparatus connectable via a
communication network to a remote computer disposed at a
remote place, comprising:

a circuit unit, having at least one programmable
logic device, to form an encrypting circuit with the
programmable logic device corresponding to given encrypting
specifications;

a network connecting unit to connect said
encrypting apparatus to the communication network;

a mapping data generating unit to read change data
for changing at least one of the encrypting specifications
in accordance with predetermined criteria received from the
remote computer via the communication network, and to
generate a mapping data object representing the structure of
the encrypting circuit;

a changing unit, coupled to said circuit unit and
said change data generating unit, to change automatically a
structure of the encrypting circuit corresponding to the
mapping data object by changing a circuit structure of the
programmable logic device without removal from said
encrypting apparatus; and

an enclosure substantially surrounding said circuit
unit, said network connecting unit, said mapping data
generating unit and said changing unit.

23. An encrypting method, comprising:

forming an encrypting circuit corresponding to
given encrypting specifications with at least one
programmable logic device;

reading change data from a remote computer via a communication network, for changing the encrypting specifications; and

automatically generating change data for changing the encrypting specification; and

automatically changing a circuit structure of the at least one programmable logic device corresponding to the change data without removal of the at least one programmable logic device from the encrypting circuit.

The references relied on by the examiner are:

| Dabbish | 4,972,478 | Nov. 20, 1990 |
| Lynn et al. (Lynn) | 5,345,508 | Sep. 6, 1994 |
| Knapp et al. (Knapp) | 5,499,192 | Mar. 12, 1996 |

Microsoft Press® Computer Dictionary, pp. 337-38 (Microsoft Corp., 3$^{rd}$ Ed., 1997).

Claims 23 through 31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Dabbish.

Claims 1 through 4, 6 through 8, 10 through 13, 15 through 17 and 19 through 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dabbish in view of Knapp and the Microsoft Computer Dictionary.

Claims 9 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dabbish in view of Knapp and Lynn.

Reference is made to the briefs (paper numbers 23 and 25)
and the answer (paper number 24) for the respective positions of
the appellants and the examiner.

OPINION

We have carefully considered the entire record before us,
and we will reverse the anticipation rejection of claims
23 through 31, and the obviousness rejection of claims 1 through
4, 6 through 13 and 15 through 22.

We agree with the examiner's findings (answer, pages 4 and
5) that Dabbish automatically changes the structure of the
reprogram elements 100 and 101 via a new cipher algorithm.  On
the other hand, we agree with the appellants' argument (brief,
page 4; reply brief, pages 2 and 3) that Dabbish changes the
crypto core elements 100 and 101 by programming changes rather
than by circuit changes as required by all of the claims on
appeal.  We do not agree with the examiner's finding (answer,
page 9) that "[c]hanging circuit connections is anticipated by
PALs, which are included in Dabbish's crypto cores" because
Dabbish, as well as appellants' disclosed invention, clearly
states that circuit changes and program changes are distinct
techniques for changing encrypting/decrypting apparatus.  To be
more specific, appellants disclose the shortcomings in software

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changes to encrypting/decrypting apparatus (specification, pages

5 and 6), and indicate a preference for hardware circuit changes

to the encrypting/decrypting apparatus (specification, pages

11 through 13, 15, 21 and 23).  Dabbish discloses an opposite

approach by stating a preference for software changes to

encrypting/decrypting apparatus to avoid the shortcomings in

encrypting/decrypting apparatus fixed in hardware (column

1, lines 12 through 14; column 2, lines 15 through 63; column 3,

line 41 through column 4, line 9).

Based upon the foregoing, the anticipation rejection of

claims 23 through 31 is reversed because Dabbish's

encrypting/decrypting circuits are fixed (column 1, lines

12 through 14), and can not be changed by change data from a

changing unit.  The obviousness rejections of claims 1 through 4,

6 through 13 and 15 through 22 are reversed because the teachings

of Knapp, the Microsoft Computer Dictionary and Lynn do not

remedy the shortcomings in the teachings of Dabbish.

DECISION

The decision of the examiner rejecting claims 23 through

31 under 35 U.S.C. § 102(b) is reversed, and the decision of the

examiner rejecting claims 1 through 4, 6 through 13 and

15 through 22 under 35 U.S.C. § 103(a) is reversed.


REVERSED


JAMES D. THOMAS                    )
Administrative Patent Judge        )
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                                   )
                                   ) BOARD OF PATENT
KENNETH W. HAIRSTON                )    APPEALS
Administrative Patent Judge        )     AND
                                   )  INTERFERENCES
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ANITA PELLMAN GROSS                )
Administrative Patent Judge        )


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